

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm - SEMESTER-VI- (NEW SYLLABUS) EXAMINATION – SUMMER-2015

Subject Code: 2260004

Date: 07/05/2015

Subject Name: Pharmaceutical Chemistry – VIII (Medicinal Chemistry-II)

Time: 10:30 am to 1:30 pm

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|------------|-----|--|-----------|
| Q.1 | (a) | Explain the theory of receptors in detail. | 06 |
| | (b) | Explain factors affecting the drug-receptor interactions | 05 |
| | (c) | What are receptors? Give the forces involved in Drug-receptor interactions. | 05 |
| Q.2 | (a) | Write structure and IUPAC name of following : | 06 |
| | | 1. Indomethacin | |
| | | 2. Chlorpromazine | |
| | | 3. Halothane | |
| | | 4. Carbamazepine | |
| | | 5. Thiopental Sodium | |
| | | 6. Amphetamine | |
| | (b) | Write synthesis of one non-heterocyclic antidepressant drug. | 05 |
| | (c) | Give synthesis and uses of Phenytoin and Amphetamine. | 05 |
| Q.3 | (a) | Comment on Benzoic acid and Aniline derivatives as local anesthetics. Give one structural example from each class. | 06 |
| | (b) | What are tricyclic antidepressants? Write short note on SSRI. | 05 |
| | (c) | What are antipsychotic agents? Write SAR of Phenothiazine. | 05 |
| Q.4 | (a) | Explain the term epilepsy. Discuss types of epilepsy and write a note on Hydantoins. | 06 |
| | (b) | Write the general method of synthesis of barbiturates? Discuss the SAR of barbiturate. | 05 |
| | (c) | Write a note on hallucinogens. | 05 |
| Q.5 | (a) | Classify CNS depressants and write a note on SAR of Barbiturates. | 06 |
| | (b) | Discuss treatment of Gout and hyperuricemia in detail. | 05 |
| | (c) | Write a short note on cognition enhancers OR DMARD's. | 05 |
| Q.6 | (a) | Write a note on Phase II metabolism. | 06 |
| | (b) | What are the factors affecting drug metabolism and add a note on CYP450. | 05 |
| | (c) | Classify Xenobiotic metabolism based on functional group with examples. | 05 |
| Q.7 | (a) | What are NSAIDs? Classify them with two examples of each class. Write synthesis of one non steroidal NSAID having one chiral center. | 06 |
| | (b) | Write note on drugs used in Alzheimer's disease OR Parkinson's disease. | 05 |
| | (c) | Write IUPAC name and synthesis of any two drugs : | 05 |
| | | 1. Diclofenac sodium | |
| | | 2. Naproxen | |
| | | 3. Mefenamic acid | |
